METHOD AND APPARATUS TO MINIMIZE CONGESTION IN A PACKET SWITCHED NETWORK

Inventors:
Ayman Fawaz
Jean Walrand

CROSS-REFERENCE TO RELATED APPLICATIONS

The present application is related to Application Serial No. 09/189206, filed November 10, 1998, entitled "Method and Apparatus for Interconnection of Packet Switches with Guaranteed Bandwidth" and to Application Serial No. 09/189347, filed November 10, 1998, entitled "Method and Apparatus to Reduce Jitter in Packet Switched Network," both incorporated by reference herein.

FIELD OF THE INVENTION

The present invention relates to communication networks, and particularly, the present invention relates to providing guaranteed quality of service in a packet switched network.

BACKGROUND OF THE INVENTION

In communications technology, there is an ever-increasing demand for high-performance networks, and in particular, a demand for high-performance Internet access. This increased demand has led to the development of improved networks capable of handling larger volumes of data with smaller delays. Nonetheless, these improved networks each have their own shortcomings.

Communications networks like the Internet are generally formed with a number of transmission links interconnected with switches. A transmission link is any medium through which signals are communicated and can be single or multiple twisted pairs, optical fiber, coaxial cable, radio links, or other mediums. A switch is a device with one or more input ports and one or more output ports. The switch directs bits arriving at an input port to the appropriate output port. Switching in communications is accomplished using one of two methods: circuit switching and packet switching.